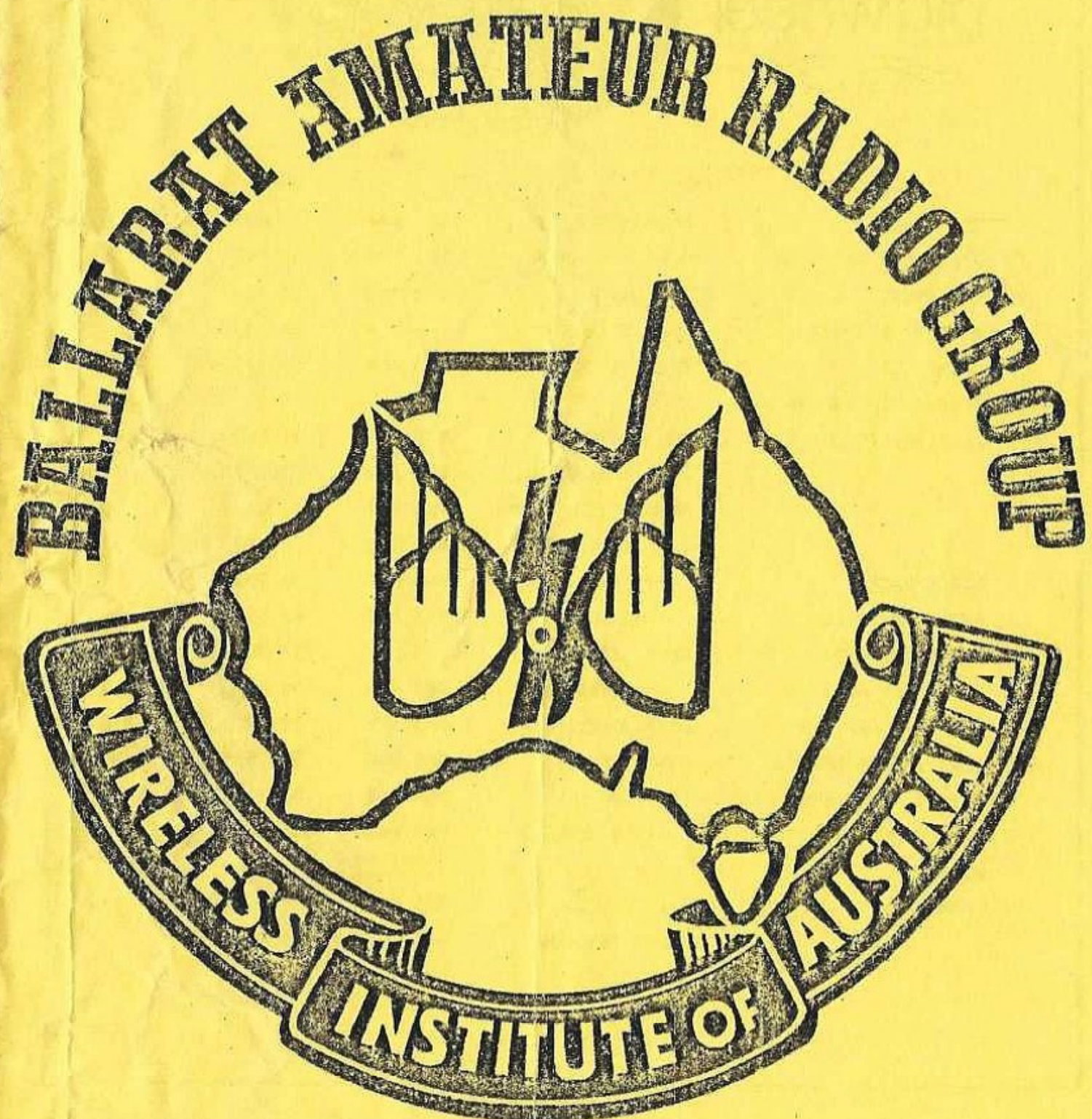


84/05

01

BARC NEWS



MAY ⁸⁴

Monthly Newsletter of the Ballarat Amateur Radio Group

REGISTERED BY AUSTRALIA POST, PUBLICATION NO. VBH3397

THE big wheel



			<u>Home</u>	<u>Bus.</u>
<i>PRESIDENT</i>	MURRAY FELSTEAD	VK3 AAI	42 0447	31 5000
<i>VICE-PRESIDENT</i>	GEORGE FOWLER	VK3 DOK	32 6863	39 1954
<i>SECRETARY</i>	JIM WRIGHT	VK3 VZD	32 7563	
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<i>TREASURER</i>	DICK ANTOSIEWICZ	VK3 AEX	32 3273	32 1818
<i>ASSIST. TREASURER</i>				
<i>TECH. OFFICERS</i>	PHIL SEDDON	VK3 AQM	31 5220	31 3166
	DICK ANTOSIEWICZ	VK3 AEX	32 3273	32 1818
	MURRAY FELSTEAD	VK3 AAI	42 0447	31 5000
	IAN ROBINSON	VK3 BTX	32 4139	
<i>QSL MANAGER</i>	CLIFF BILSTON	VK3 PAF	34 7626	
<i>AWARDS MANAGER</i>	MAURIE BATT	VK3 XEX	42 2245	
<i>PUBLICITY OFFICER</i>	GEOFF SMITH	VK3 KLZ	32 1037	
<i>EDUCATION OFFICER</i>	JIM HUMPHRIES	VK3 ANI	32 1613	32 1719
<i>PROPERTY OFFICER</i>	DICK ANTOSIEWICZ	VK3 AEX	32 3273	32 1818
<i>NEWS LETTER EDITOR</i>	HENRY MORITZ	VK3 DXC	32 7569	30 1800
<i>ASSIST. NEWSLETTER ED.</i>	CLEM JARVIS	VK3 YDI	31 4179	
<i>NET CO-ORDINATOR</i>	CLIFF BILSTON	VK3 PAF	34 7626	
<i>WICEN</i>				
<i>COMMITTEE *</i>	BILL JOHNSON	VK3 DWJ	40 2288	
	HARRY HEKKEMA	VK3 KGL	35 7563	

B.A.R.G. meets the last FRIDAY of month at the Ballarat Education Centre, Hopetoun St. all correspondence to P.O.BOX 216E. Ballarat East 3350. Victoria. Awards Manager VK3AEX. R S.D. Rokewood Junction. VIC.

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Just one more minute...

Minutes of General Meeting held 27th April, 1984.

The meeting was called to order by President Murray at 7.55pm.

APOLOGIES. Henry DXC, Fred PFF, Les PGL, Ted NIZ, Stan SE.

MINUTES of previous meeting as printed in News Letter confirmed.

CORRESPONDENCE. G.A.R.C. News Letter. Information on 1984 South East Radio Group Convention on 9th & 10th June at Mt. Gambier.

TREASURERS REPORT. General a/c \$183.61. V.S & L \$555.53. Family Fund \$144. Outstanding accounts passed for payment.

Q.S.L. Manager Cliff reported 10 1/4 cards out. No incoming cards this month.

AWARDS Manager Maurie sent out 6 D.X. Widows awards and stated that we need to dispose of 3 Goldrush Awards to cover initial printing costs.

CLUB NET is still well supported. 36 Call in stations have qualified for the Goldrush Award but have not applied. Cliff is looking for more Net Controllers to ease the work load.

PUBLICITY Officer Geoff reported that the Apex Bike-a-thon communications were successfully carried out and duly appreciated. Next project is Lake Goldsmith Steam Rally.

PROPERTY Officer Dick has taken delivery of a 4'x 4' tent for generator.

EDUCATION Officer reported that A.O.C.P. Classes are proceeding well.

NEWS LETTER Henry conveyed his thanks to those Members who got the News Letter out while he was unavailable.

CONVENTION Dick VU reported that Dick Smith was unavailable to be guest speaker at Dinner, so a good speaker is urgently needed. Publicity will start flowing next month. Tickets for Gmtr Rig will be \$2.00 each.

GENERAL BUSINESS. The A.G.M. will be held on Friday 29th June please give some thought to accepting an office in YOUR CLUB.

NOTICE OF MOTION MUST BE GIVEN AT THE NEXT MEETING FOR ANY MOTION TO ALTER OR AMEND THE CLUB CONSTITUTION.

RAFFLE The raffle prize consisting of a Fitness Course donated by Y.M.C.A. was won by George DS who being in top physical condition gave it back for another draw which was won by Bill CWG.

WICEN. Dick AEX then gave an update on happenings in WICEN including the good news that B.A.R.G. is officially recognised by the State Emergency Services.

NEXT CLUB MEETING WILL COMMENCE AT 7.00pm to allow ICOM to set up their display of equipment.

Meeting closed at 8.40 pm.

U.H.F. Antenna.

(Reprinted from VK3ATY/VK3ZJY
ATV Handbook)

Page 29 gives physical sizes of elements and spacings for three U.H.F. yagi type antenna - frequencies of useage are 426, 4 and 579 MHz. Details of a very simple type matching network for each unit is shown on Page 30.

Each of the antenna has a gain of approximately 13 db and will be ideal to build and use for a very small outlay. At a later stage you can purchase one of the more sophisticated and more expensive units such as a Jaybeam - 88 elements. or VK3MTN types.

The units are designed around materials that can be bought in a local hardware store (at least this is so in Melbourne). The boom is a 16mm by 16mm square steel box whilst the elements are 3.2mm (1/8") bronze welding rod.

- Perhaps two areas will be a little troublesome when building;
- (a) When drilling the holes in the boom for the elements, try and make them in line and very close fitting. In line because the elements will stick out at all angles if you dont; and close fitting to allow you to soft solder if silver solder is not available or beyond your cost.
 - (b) The lengths of the elements are critical for efficient operation. They dont quite match the accepted formula because there is a shortening effect caused by the use of a metal boom. To illustrate how critical are the lengths stated: 1mm on 426 MHz is equal to 128mm (5 inches) on 3.5 MHz and I am quite sure that you would not build a 3.5 MHz antenna to the nearest 5 inches.

Although an S0239 type Teflon socket is shown in the drawing, it is preferable to use what is known as a type "N", more specifically an Acme type C39-02. This statement is especially so when the frequency of operation is 579 MHz.

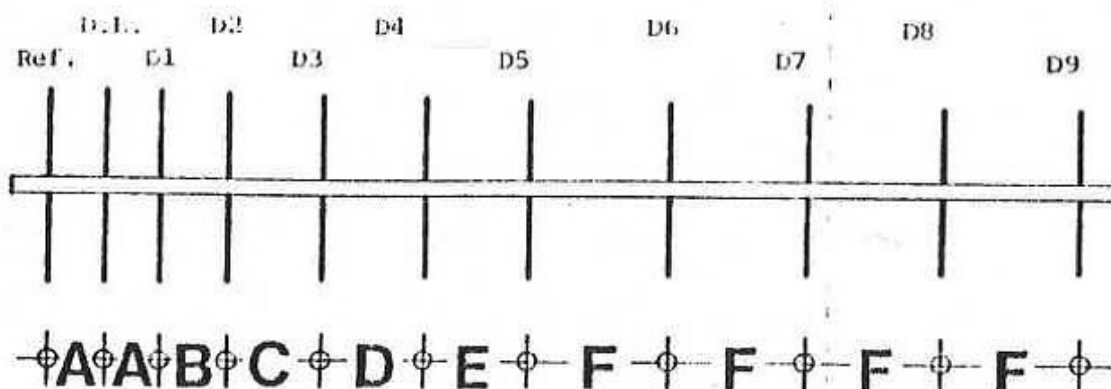
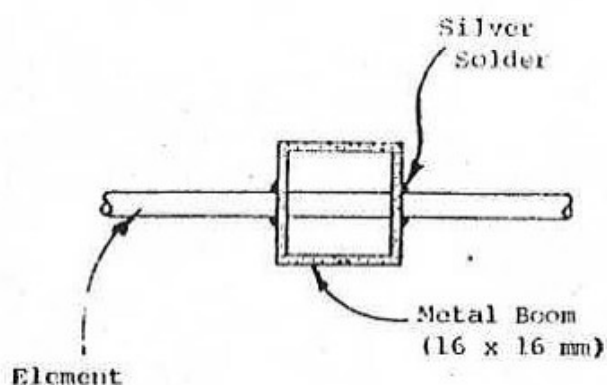
The area between the boom and the bottom of the connector (has the disc ceramic capacitor) should be filled with "Silastic" or a similar material to prevent the influx of moisture and to help prevent spiders from spinning a small web, effectively providing a resistance path.

NOTE: If not using 'Silastic' make sure that you use a non-acid cure silicone to avoid corrosion under the sealant.

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U.H.F. A.T.V. ANTENNAS

(For 426, 444 or 579 MHz Operation)

CROSS-SECTIONBOOM SIZE:

16mm x 16mm steel box (standard stock item in most hardware stores)
2m long for 426 & 444 MHz.
1.5m long for 579 MHz.)

ELEMENT SIZE:

1/8" brazing rod soldered (or silver soldered to boom)

Element Number	Element Length (mm)		
	426MHz	444MHz	579MHz
Ref.	351	337	249
D.E.	338	325	239
D1	312	300	230
D2	309	296	228
D3	306	293	227
D4	302	290	226
D5	299	287	225
D6	296	284	224
D7	293	281	222
D8	290	279	221
D9	286	275	220

ELEMENT SPACING DETAILS

Spacing	Distance (mm)		
	426MHz	444MHz	579MHz
A	97	93	70
B	122	117	90
C	167	161	125
D	187	179	135
E	193	185	140
F	245	235	180

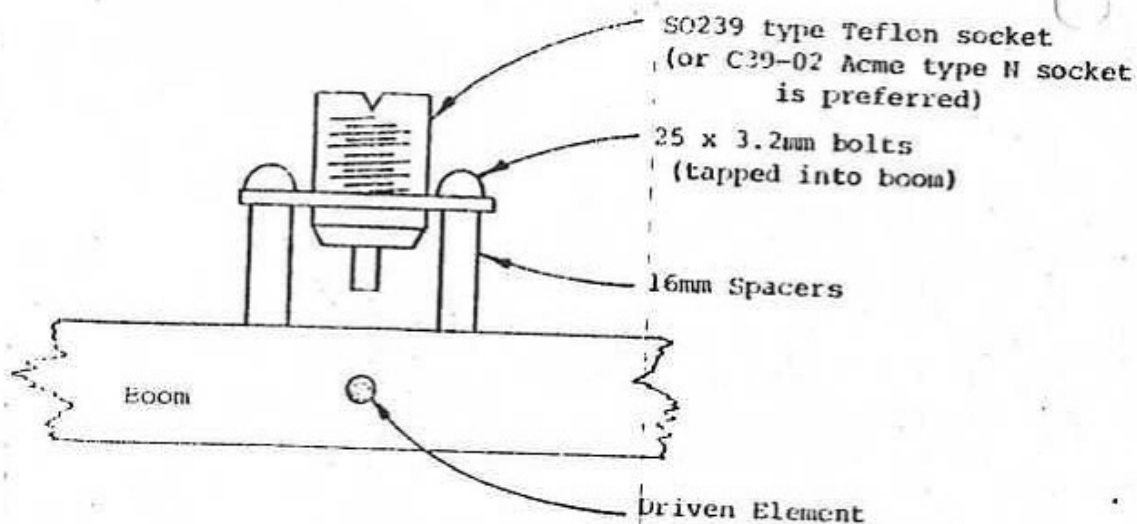
H.W. Rider

6, 84/05 06

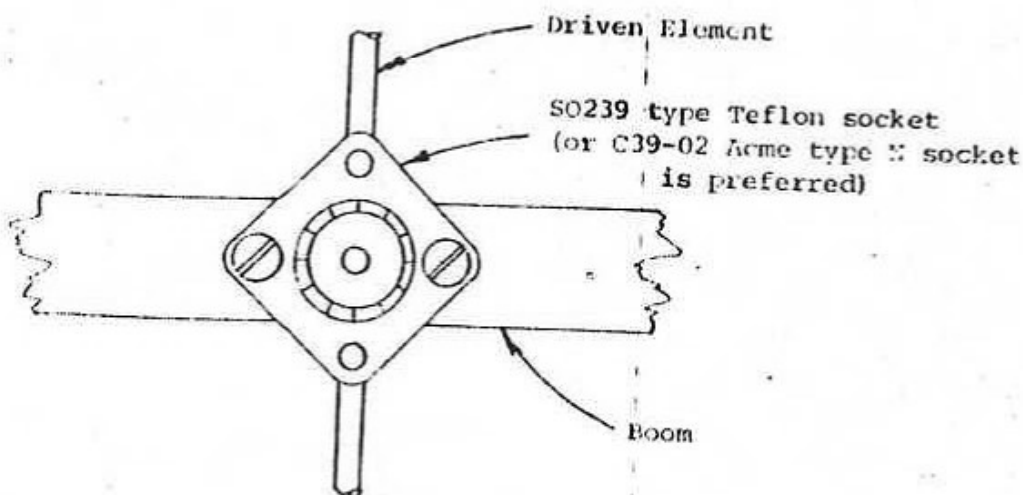
U.H.F. A.T.V. ANTENNAS

GAMMA MATCH DETAILS

Elevation

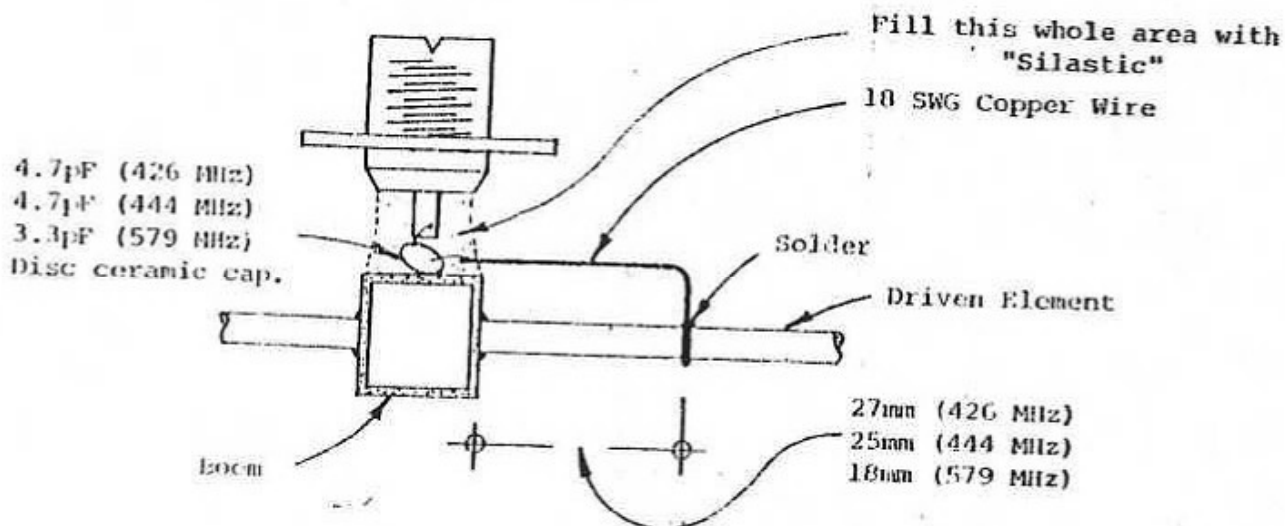


Plan



Gamma Match

(Spacers not shown for clarity)



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EVERYTHING FROM A TO Z IN ELECTRONICS

INSTRUCTIONS FOR BACKUP V1.0

A look at how a typical game program on cassette is structured is helpful in using Backup V1.0. You are probably aware that some of your programs are loaded in sections. Typically the instructions are loaded in first, sometimes followed by another set of instructions and finally the game itself. Some programs make use of a sequential file which is read into the computer by the last "loaded" program.

The easiest type to copy is the single part program. This is a program which you can load by -

- A) typing "LOAD" (not LOAD/RUN) and then pressing "RETURN"
- B) when loading is completed, press the stop key on the recorder
- C) type "RUN" then press "RETURN"

If you cannot run the complete program without being prompted to press the play key on the recorder, you have a multiple part program. Following are instructions for copying single and multiple part programs. Your Backup V1.0 listing contains two programs - Backup V1.0 and File Clone.

To copy a single part program proceed as follows -

- 1) Load Backup V1.0 and run it. "PREPARE FOR LOAD" will appear on the screen.
- 2) Remove Backup V1.0 from the recorder and replace it with the fully rewound cassette of the material you wish to copy.
- 3) Press the SHIFT key when you are ready. When you press the play key on the recorder as prompted, your program will be loaded into your computer under control of Backup V1.0, bypassing the normal basic tape operating system of your VIC or C-64.
- 4) When loading is completed, you will be prompted with "PREPARE FOR SAVE". (If you get a "?LOAD ERROR", see "Loading Problems".) Remove your original cassette (do not rewind it if there is more than one part) and replace it with a fully rewound blank.
- 5) Press the shift key and then the record/play keys as prompted. After the program is saved, you will be prompted to "SAVE AGAIN?" If you wish to make another copy, simply put another rewound blank cassette in the recorder and press "Y". Do not rewind your "saved" cassette if there is more than one part.

If your working with a one part program, you're done. If not, press the "N" when prompted to "SAVE AGAIN" and -

- 6) Place the cassette you're copying, which has not been rewound, in the recorder.
- 7) Respond to the prompt as in step 3.
- 8) Press the shift key and then the play key on the recorder as prompted.
- 9) Follow steps 4 and 5 as before.

If there is still another part, press the "N" when requested and repeat the last four steps again.

LOADING PROBLEMS.

If you get a "?LOAD ERROR" message, try steps 1 through 4 again. Keep your recorder away from the TV set. If "?LOAD ERROR" appears

again, you may need additional memory for your VIC20. If funny things start appearing on your screen while loading, you need more memory. An additional 8K is more than enough. The C-64, of course, already has more than enough.

If the tape winds itself to the end without loading anything and you know there is something there, then what you have is a sequential data file. This can be copied using the File Clone Program. See the instructions below for use of the File Clone.

If what you have is not a sequential file and/or you still cannot make a successful load, you may have a Program with a novel Protection scheme.

FILE CLONE

Sequential files are easily copied with File Clone. It will copy either numeric or character string data of indeterminate length, automatically. Sequential files are never the first Part of a Program. They are nearly always the last. Use File Clone as follows -

- 1) Load File Clone and run it.
- 2) Remove File Clone and replace it with the cassette you're copying (not rewound).
- 3) Press the control key and then the Play key on the recorder.
- 4) When the reading of the file is completed you will be informed of the amount of data retrieved. Remove the original cassette and replace with your blank (not rewound).
- 5) Press the control key and then the record/Play keys as Prompted. After the data is recorded the screen will verify that the data has been recorded. You may, as with Backup V1.0, record it again on another cassette.

COMMENTS.

Backup V1.0 makes copies that are true clones. If the original is a Protected Program, your copy is still Protected. If your original was intended to run on an unexpanded VIC, your copy will also.

Backup V1.0 will work with only one Program, or one Part of a Program, at a time. I.e. you must restart Backup V1.0 each time you wish to copy a different Program, or different Part of a Program. By Pressing "N" when Prompted to "SAVE AGAIN" you will be restarting the Program. Pressing any key but the "Y" or "N" will allow you to exit the Program. Your memory Pointers have been altered by Backup V1.0 such that you will have to turn your computer off and on to reset them.

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```
1 POKE56,PEEK(44)+2:PRINT"UNPREPARE FOR LOAD":WAIT653,1:SYSPEEK(44)*256+292:PEEK(144)AND48THEN4
2 IFPEEK(828)><1ANDPEEK(828)><3THENPRINT"NOT A PROGRAM FILE.":END
3 PRINT"UNPREPARE FOR SAVE":WAIT653,1:SYSPEEK(44)*256+383:GOTO5
4 PRINT"LOAD ERROR":PRINT"RUN AGAIN":END
5 PRINT"SAVE AGAIN?":POKE198,0:WAIT198,1:IFPEEK(631)=89THEN3
7 IFPEEK(631)=78THEN1
8 END
```

READY.

```
20 REM *** FILE CLONE *** NOV83
50 PRINT"UNPREPARE FILE TAPE FOR":PRINT"COPYING."
60 PRINT"PRESS CONTROL KEY WHEN READY"
70 PRINT"READY.":WAIT653,4
80 POKE56,PEEK(44)+4:P=PEEK(56)*256:S=P-1:N=0:L=1:OPEN4,1
90 TL$="":FOR T=833 TO 1019:TL$=TL$+CHR$(PEEK(T)):NEXT T
100 GET#4,D$:IF STATUSAND64 THEN L=2
110 D=ASC(D$+CHR$(0)):N=N+1:S=S+1:POKE S,D:ONLY GOTO 100,200
200 CLOSE4:PRINT"DATA COPIED = "N
210 Q=0:PRINT"UNPREPARE TAPE FOR SAVE"
220 PRINT"ING. PRESS CONTROL KEY WHEN READY"
230 PRINT"WHEN READY.":WAIT653,4
260 OPEN4,1,1,TL$:FOR C=PTOS:PRINT#4,CHR$(PEEK(C)):Q=Q+1:NEXT:CLOSE4
265 PRINT"DATA SAVED = "Q
270 PRINT"FILE SAVED."
275 PRINT"SAVE AGAIN?"
280 GETA$:IFA$="" THEN 280
290 IFA$="Y" THEN 210
```

READY.

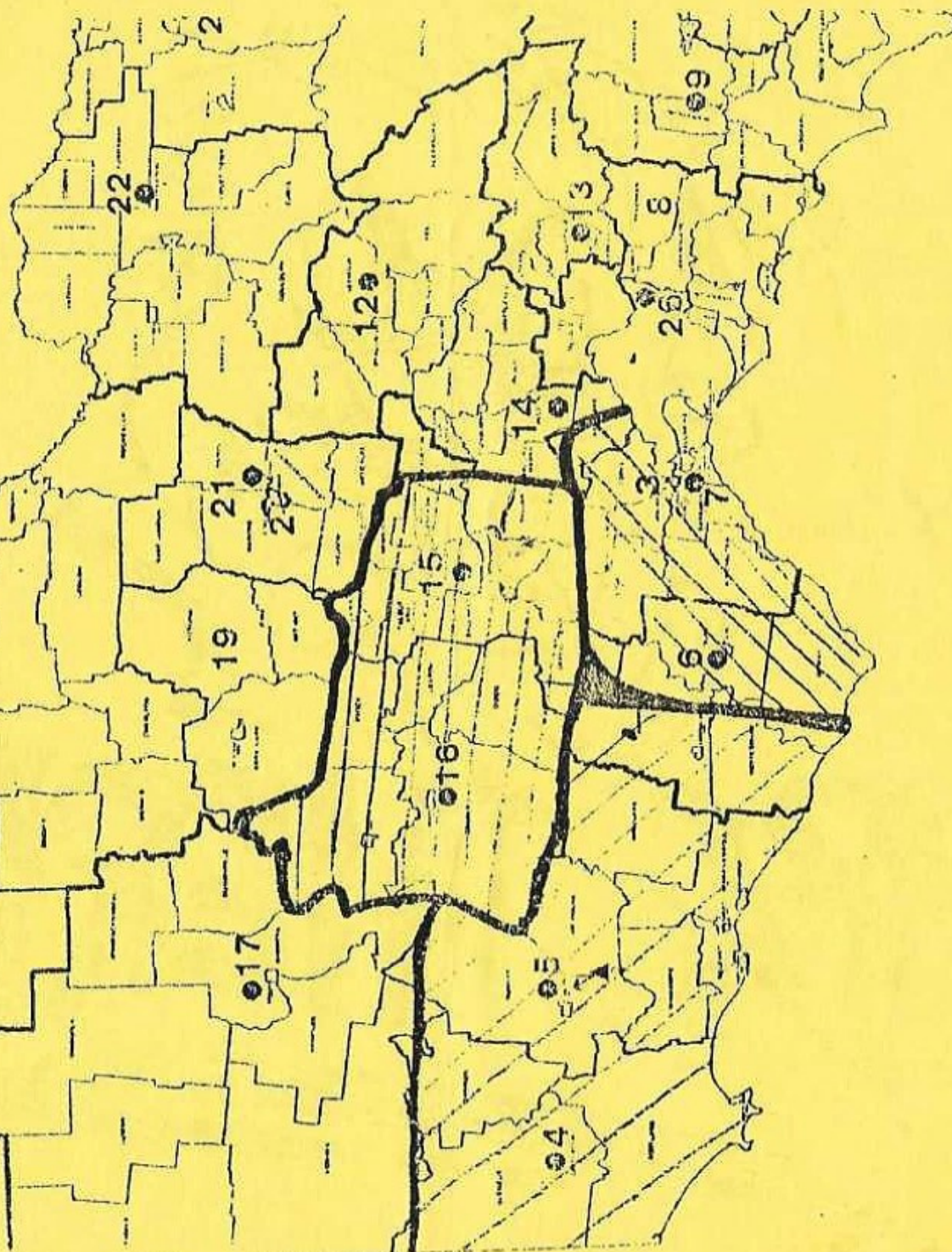
NOTICE OF ANNUAL GENERAL MEETING.

The Annual General Meeting of the Western Zone will take place at Lake Bolac on the 26th May starting at 13.30 hours. Those that wish may turn up early for a Counter Lunch.

Walter P. Wells.
(W.P. Wells) VK3PAL. Sec.

One of the important issues to be discussed is the splitting-up of the Western Zone. One suggestion that has been made is sketched out below for your consideration.

NORTH EASTERN ZONE
EAST CENTRAL ZONE (D)



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Ballarat

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